

# **Lifelong Wellness Habits**

## **Grades: 4 - 5**

### **Interdisciplinary Unit**

**Overview:** You will explore the effects of nutrition, physical activity, and tobacco use on your cardiovascular system. You will investigate and practice health habits for lifelong wellness.

### **Major Focus**

#### **Academic Expectations:**

- 2.29 Students demonstrate skills that promote individual well-being and healthy family relationships.
- 2.30 Students evaluate consumer products and services and make effective consumer decisions.
- 2.31 Students demonstrate the knowledge and skills they need to remain physically healthy and to accept responsibility for their own physical well-being.
- 2.32 Students demonstrate strategies for becoming and remaining mentally and emotionally healthy.
- 2.33 Students demonstrate the skills to evaluate and use services and resources available in their community.
- 2.34 Students perform physical movement skills effectively in a variety of settings.
- 2.35 Students demonstrate the knowledge and skills that promote physical activity and involvement in physical activity throughout their lives.

#### **Essential Content:**

- Impact of diet, exercise, and rest on growth, development, and disease prevention
- Food groups and recommended servings from food guide pyramid
- Nutritional meals and snacks
- Wants versus needs

- Benefits of regular exercise
- Cardiorespiratory endurance, muscular strength, endurance, and flexibility.
- Benefits of participating in school and community recreational and competitive activities
- Individual improvement through practice
- Pulse rate monitoring
- Causes and management of stress
- Personal safety strategies
- Media and advertising techniques
- Positive and negative consequences of choices and actions
- Nonmedicinal drugs and risks of taking nonmedicinal drugs
- Decision-making strategies
- Physical, emotional, and social changes of growth and development
- Community-sponsored agencies and services that promote and maintain health and safety

**Organizer:** Live to be a healthy me

**Essential Questions:**

- Why are lifelong nutritional habits important?
- Why is lifelong physical activity important?
- How could long-term tobacco use affect my cardiovascular health?
- How do I develop a personal, lifelong wellness plan?

## **Culminating Project:**

Your class will conduct a wellness fair where participants (e.g., students, parents, faculty, community members) visit different booths and gather information about cardiovascular health on a personal wellness inventory. Develop activities, brochures or pamphlets, models, and posters to communicate ways of maintaining lifetime health habits that promote wellness. Display at wellness fair.

Fair could include the following booths:

### **Nutrition:**

- model of sample serving sizes including nutritional information
- statistics about overweight/underweight Kentuckians
- scales for weighing volunteers
- comparison of regular foods versus reduced fat foods
- comparison of fast food menu items
- international food guide pyramids

### **Tobacco:**

- student produced brochures that include tobacco-related information
- information about tobacco production and cigarette manufacturing
- economic statistics including, international, national, and state data
- tobacco laws
- trends in advertising
- statistics regarding cardiovascular risks and consequences of tobacco use.

### **Physical activity and wellness:**

- activities to calculate target heart rate, resting heart rate, blood pressure, body mass index, vital lung capacity, and comparisons to national norms
- demonstrations of proper techniques in physical activity that could include tae-bo, tai-chi, step aerobics, stretching, dynabands, calisthenics, and weight training

## Scoring Guide

<b>Performance Levels</b>	<b>Indicators</b>
Platinum	<ul style="list-style-type: none"> <li>• all information is well organized and clearly displayed</li> <li>• wellness booth is creatively displayed and attractive</li> <li>• student demonstrates extensive understanding of concepts of lifelong wellness and cardiovascular health and makes logical connections to real life</li> <li>• student demonstrates extensive understanding of team skills, appropriate group behaviors, and strategies for working with others</li> <li>• student demonstrates extensive understanding of decision-making and makes applications to support choices</li> </ul>
Gold	<ul style="list-style-type: none"> <li>• most information is well organized and clearly displayed</li> <li>• wellness booth is creatively displayed and attractive</li> <li>• student demonstrates broad understanding of concepts of lifelong wellness and cardiovascular health and makes logical connections to real life</li> <li>• student demonstrates broad understanding of team skills, appropriate group behaviors, and strategies for working with others</li> <li>• student demonstrates broad understanding of decision-making and makes applications to support choices</li> </ul>
Silver	<ul style="list-style-type: none"> <li>• some information is well organized and clearly displayed</li> <li>• booth lacks creativity</li> <li>• student demonstrates basic understanding of concepts of lifelong wellness and cardiovascular health and makes logical connections to real life</li> <li>• student demonstrates basic understanding of team skills, appropriate group behaviors, and strategies for working with others</li> <li>• student demonstrates basic understanding of decision-making and makes applications to</li> </ul>

	support choices
Bronze	<ul style="list-style-type: none"> <li>• information is poorly organized and displayed</li> <li>• booth lacks creativity and is unattractive</li> <li>• student demonstrates minimal understanding of concepts of lifelong wellness and cardiovascular health and makes logical connections to real life</li> <li>• student demonstrates minimal understanding of team skills, appropriate group behaviors, and strategies for working with others</li> <li>• student demonstrates minimal understanding of decision-making and makes applications to support choices</li> </ul>

Note: Performance level for the scoring guide have been adapted from the Kentucky Department of Education's Performance Level Descriptions (2001) document.

### **Enabling Knowledge:**

- Food guide pyramid
- Basic food groups
- Cardiovascular diseases
- Structures of the cardiovascular system (e.g., heart, lung, blood, arteries) and basic functions

### **Enabling Skills and Processes:**

- Language skills (e.g., use of descriptive and figurative language, word usage, spelling, writing, reading)
- Communicating (e.g., public speaking, listening)
- Organizing information
- Using information
- Research skills (e.g., Web browsing)
- Cooperating and working with a team
- Math skills (e.g., measuring, calculating, graphing)
- Basic art and craft skills (e.g., drawing, coloring, cutting, pasting)

## **Instructional Plan 1**

**Title:** Nutrition Rules

**Number of Days:** 6-7

### **Academic Expectations:**

- 2.29 Students demonstrate skills that promote individual well-being and healthy family relationships.
- 2.30 Students evaluate consumer products and services and make effective consumer decisions.
- 2.31 Students demonstrate the knowledge and skills they need to remain physically healthy and to accept responsibility for their own physical well-being.
- 2.33 Students demonstrate the skills to evaluate and use services and resources available in their community.

### **Essential Content:**

- Impact of diet, exercise, and rest on growth and development, and disease prevention
- Food groups and appropriate servings from food guide pyramid
- Nutritional meals and snacks
- Wants versus needs
- Media and advertising techniques
- Positive and negative consequences of choices and actions
- Decision-making strategies
- Physical, emotional, and social changes of growth and development

### **Essential Question:**

Why are lifelong, nutritional habits important?

### **Enabling Knowledge:**

- Food guide pyramid
- Basic food groups
- Cardiovascular diseases
- Structures of the cardiovascular system (e.g., heart, lung, blood, arteries) and basic functions





**Enabling Skills and Processes:**

- Language skills (e.g., use of descriptive and figurative language, word usage, spelling, writing, reading)
- Communicating (e.g., public speaking, listening)
- Organizing information
- Using information
- Research skills (e.g., Web browsing)
- Cooperating and working with a team
- Math skills (e.g., measuring, calculating, graphing)
- Basic art and craft skills (e.g., drawing, coloring, cutting, pasting)

**Activity 1:****Materials:**

- graph paper
- chart paper
- art supplies

Research change in nutritional requirements for different ages (e.g., youth, young adult, older adult). Investigate how height, weight, age, and gender influence basal metabolic rates. Calculate basal metabolic rates for family members and display (e.g., charts, graphs). Create nutritionally sound food plans for family members based on basal metabolic rates. Explain in learning logs why we have different caloric needs and how changing dietary habits will lead to improved health.

**Activity 2:****Materials:**

- RDA nutritional guidelines
- food labels
- poster board
- art supplies

Identify RDA nutritional guidelines of basic daily nutrient needs (e.g., vitamins, minerals, fats, carbohydrates, water). Research product labels for foods from all sections of the food guide pyramid. Explain criteria for different nutritional terminology found in food labels (e.g., low-fat, lite, light). Compare nutrition facts. For example, compare carbohydrate information for regular and low-fat cookies of the same brand. Develop a food plan for one day that meets the RDA nutritional guidelines. Create displays for wellness fairs that compare nutritional content of different foods.

### **Activity 3:**

#### **Materials:**

- graph paper
- learning logs
- reading material about other cultures
- art supplies

Read stories from other cultures about food habits and customs. Investigate nutritional patterns of other cultures (e.g., Mediterranean, Oriental). Share meal plans with penpals from other cultures. Compare food plans and food guide pyramids with penpals. Investigate incidence of cardiovascular disease in other cultures. Create graphs to compare cardiovascular disease in United States to that of another culture. Explain in learning logs how this information may change your food choices.

### **Activity 4:**

#### **Materials:**

- food labels
- menus from fast food restaurants
- low-fat and regular foods
- graduated containers
- food guide pyramids
- chart paper
- art supplies

Investigate nutritional value of favorite foods (e.g., pizza) by placing ingredients into food guide pyramid categories. Determine additives (e.g., sugar, sodium) and discuss their value. Develop displays showing food additives and nutrients of favorite foods. Compare amount of fat in favorite fast food products using menus and food labels. Cook lean and regular ground beef, pour into graduated containers, and compare the amount of fat drained off each. Investigate differences in similar products such as butter, margarine, and light butter. Melt samples and pour into a graduated container. Fat and water will separate. Develop models and displays to compare fat content of favorite fast foods.

### **Assessment Activity:**

Write persuasive news articles describing why people should select healthy foods.

## **Instructional Plan 2**

**Title:** Physical Fun

**Number of Days:** 8-10

### **Academic Expectations:**

- 2.29 Students demonstrate skills that promote individual well-being and healthy family relationships.
- 2.31 Students demonstrate the knowledge and skills they need to remain physically healthy and to accept responsibility for their own physical well-being.
- 2.34 Students perform physical movement skills effectively in a variety of settings.
- 2.35 Students demonstrate the knowledge and skills that promote physical activity and involvement in physical activity throughout their lives.

### **Essential Content:**

- Impact of diet, exercise, and rest on growth and development, and disease prevention
- Benefits of regular exercise
- Cardiorespiratory endurance, muscular strength, endurance, and flexibility.
- Benefits of participating in school and community recreational and competitive activities
- Heart rate monitoring
- Positive and negative consequences of choices and actions
- Decision-making strategies

**Essential Question:**

Why is lifelong, physical activity important to my health?

**Enabling Knowledge:**

- Food guide pyramid
- Basic food groups
- Cardiovascular diseases
- Structures of the cardiovascular system (e.g., heart, lung, blood, arteries) and basic functions

**Enabling Skills and Processes:**

- Language skills (e.g., use of descriptive and figurative language, word usage, spelling, writing, reading)
- Communicating (e.g., public speaking, listening)
- Organizing information
- Using information
- Research skills (e.g., Web browsing)
- Cooperating and working with a team
- Math skills (e.g., measuring, calculating, graphing)
- Basic art and craft skills (e.g., drawing, coloring, cutting, pasting)

**Activity 1:****Materials:**

- graph paper
- chart paper
- art supplies
- blood pressure monitor

Investigate relationship between blood pressure and physical activity. Check blood pressure of faculty and/or students. Develop a survey regarding exercise, recreational, and work habits of faculty and students. Create graphs to compare trends and patterns. Display results at wellness fair.

### **Activity 2:**

#### **Materials:**

- graph paper
- resting and target heart rate charts
- chart paper
- art supplies

Determine personal resting and target heart rates. Compare with peers and determine if values are within normal range. In learning logs, compare class resting and target heart rates. Create charts and graphs to compare trends and patterns. Display results at wellness fair.

### **Activity 3:**

#### **Materials:**

- graph paper
- chart paper
- art supplies
- calculations of BMI or BMI chart
- calculators

Determine body mass index. Determine if student values are within normal range. Investigate number of students in school, state, and nation that are over and underweight. Create charts and graphs showing percentages of students who are in the appropriate BMI range, who's above and those below to display at wellness fair.

### **Activity 4:**

#### **Materials:**

- graph paper
- chart paper
- art supplies
- graduated cylinders
- water
- flexible tubing
- sink or basin

Investigate vital lung capacity of faculty, athletes, non-athletes, and family members. Fill large graduated cylinder with water. Position it upside down in sink or basin full of water. Blow through a flexible tube into the cylinder. The amount of water displaced is the vital lung capacity. Compare vital lung capacity of athletes and non-athletes. Create

charts and graphs for wellness fair.

**Activity 5:****Materials:**

- graph paper
- chart paper
- art supplies

Investigate components of fitness (strength, muscular endurance, flexibility, cardiovascular endurance). Identify activities that address each area. Participate in fitness testing. Analyze scores compared to national averages. Determine strengths and weaknesses of personal health and fitness. Calculate class and/or school statistics. Select one component you would like to improve. Describe a personal improvement plan. Develop activities to be modeled at wellness fair.

**Activity 6:****Materials:**

- graph paper
- chart paper
- art supplies
- information on multicultural games and dances

Identify international dances and games performed by many cultures such as Asian, Latin American, and Mediterranean. Examine differences in locomotor activities among the cultural dances and games. Create and perform ethnic dances or games at wellness fair that exemplify features of each culture.

**Assessment Activity:**

Create PowerPoint group presentations or videos that demonstrate benefits of physical activities on blood pressure, resting and target heart rates, body mass index, vital lung capacity, and fitness components.

## **Instructional Plan 3**

**Title:** Tobacco Use

**Number of Days:**

**Academic Expectations:**

- 2.29 Students demonstrate skills that promote individual well-being and healthy family relationships.
- 2.30 Students evaluate consumer products and services and make effective consumer decisions.
- 2.31 Students demonstrate the knowledge and skills they need to remain physically healthy and to accept responsibility for their own physical well-being.
- 2.33 Students demonstrate the skills to evaluate and use services and resources available in their community.

**Essential Content:**

- Media and advertising techniques
- Positive and negative consequences of choices and actions
- Nonmedicinal drugs and risks of taking nonmedicinal drugs
- Decision-making strategies
- Physical, emotional, and social changes of growth and development
- Community-sponsored agencies and services that promote and maintain health and safety

**Essential Question:**

How could long-term tobacco use affect my cardiovascular health?



**Enabling Knowledge:**

- Food guide pyramid
- Basic food groups
- Cardiovascular diseases
- Structures of the cardiovascular system (e.g., heart, lung, blood, arteries) and basic functions

**Enabling Skills and Processes:**

- Language skills (e.g., use of descriptive and figurative language, word usage, spelling, writing, reading)
- Communicating (e.g., public speaking, listening)
- Organizing information
- Using information
- Research skills (e.g., Web browsing)
- Cooperating and working with a team
- Math skills (e.g., calculating, graphing)
- Basic art and craft skills (e.g., drawing, coloring, cutting, pasting)

**Activity 1:****Materials:**

- graph paper
- chart paper
- art supplies

Investigate different ingredients of tobacco products and their effects on the cardiovascular system. Create displays showing ingredients and their effects for wellness fair.

**Activity 2:****Materials:**

- graph paper
- chart paper
- empty cigarette containers
- information on ingredients of cigarettes
- art supplies

Investigate the impact of tobacco use and exposure on growth and development of humans. Investigate community resources that provide assistance to pregnant women.

Discuss how habits and environment of the mother affects unborn children. Survey mothers to see if they smoked when pregnant. Examine the relationship of low birth weight to tobacco use during pregnancy. Display data at fair.

**Activity 3:****Materials:**

- chart paper
- art supplies

Investigate asthma rates, recurring ear infections, and other problems as they relate to tobacco use and/or exposure to tobacco smoke. Examine smoking-related health problems associated with different age levels (e.g., risk-taking behaviors in teens, emphysema, lung cancer). Develop handouts of the various health problems associated with tobacco use. Distribute at wellness fair. Create displays for wellness fair.

**Activity 4:****Materials:**

- chart paper
- art supplies

Research tobacco use in other cultures. Compare cardiovascular disease rates in other countries to those in the United States. In learning logs, explain why these rates vary from the rates found in the US. Create displays for wellness fair.

**Assessment Activity:**

Create a timeline to put around gymnasium that shows effects of tobacco use or exposure as individuals grow and develop.

## **Instructional Plan 4**

**Title:** Personal Wellness Plans

**Number of Days:** 7 - 10

### **Academic Expectations:**

- 2.29 Students demonstrate skills that promote individual well-being and healthy family relationships.
- 2.30 Students evaluate consumer products and services and make effective consumer decisions.
- 2.31 Students demonstrate the knowledge and skills they need to remain physically healthy and to accept responsibility for their own physical well-being.
- 2.32 Students demonstrate strategies for becoming and remaining mentally and emotionally healthy.
- 2.33 Students demonstrate the skills to evaluate and use services and resources available in their community.
- 2.35 Students demonstrate the knowledge and skills that promote physical activity and involvement in physical activity throughout their lives.

### **Essential Content:**

- Impact of diet, exercise, and rest on growth and development, and disease prevention
- Food groups and appropriate servings from food guide pyramid
- Wants versus needs
- Benefits of regular exercise
- Cardiorespiratory endurance, muscular strength, endurance, and flexibility.
- Benefits of participating in school and community recreational and competitive activities
- Heart rate monitoring
- Positive and negative consequences of choices and actions
- Nonmedicinal drugs and risks of taking nonmedicinal drugs
- Decision-making strategies
- Physical, emotional, and social changes of growth and development
- Community-sponsored agencies and services that promote and maintain health and safety

**Essential Question:**

How do I develop a personal, lifelong wellness plan?

**Enabling Knowledge:**

- Food guide pyramid
- Basic food groups
- Cardiovascular diseases
- Structures of the cardiovascular system (e.g., heart, lung, blood, arteries) and basic functions

**Enabling Skills and Processes:**

- Language skills (e.g., use of descriptive and figurative language, word usage, spelling, writing, reading)
- Communicating (e.g., public speaking, listening)
- Organizing information
- Using information
- Research skills (e.g., Web browsing)
- Cooperating and working with a team
- Math skills (e.g., calculating, graphing)
- Basic art and craft skills (e.g., drawing, coloring, cutting, pasting)

**Activity 1:**

Develop a personal wellness inventory sheet for participants' use at wellness fair.

Physical wellness measurements:

- blood pressure
- resting and target heart rates
- height and weight
- body mass index
- flexibility
- vital lung capacity

Daily nutrient requirements for:

- vitamins
- minerals
- carbohydrates
- fats
- proteins
- sodium
- water



Minimum and maximum number of servings and serving sizes from each level of the food guide pyramid:

- breads, cereals, starches
- vegetables
- fruit
- meat and meat substitutes
- milk and dairy
- sweets/fats/oils

Names of 4 diseases caused by tobacco use

Impact of tobacco exposure at different ages:

- adolescent
- young adult
- older adult

Three types of exercises and the fitness components they address. Base choices on personal needs and interests.

### **Activity 2:**

Review the components (fitness, diet, health habits) of wellness. Use the personal wellness inventory instrument (developed in Activity 1) to assess current personal wellness. Identify and discuss steps used (e.g., self-assessment of current fitness, diet, health habits; set goals for improvement; set specific strategies to meet goals in nutrition, physical activity, and tobacco avoidance) to develop personal wellness plans. Create model plans for wellness fair.

### **Assessment Activity:**

Create model wellness plans for adolescents, young adults, and older adults based on needs and interests.

### **Resources:**

Meeks, Linda, Philip Heit, and Randy Paze. (1996). *Comprehensive school health: Label reading* 2nd Ed. Ohio State University: Meeks-Heit Publishing Company, Inc.

National Dairy Council. (1998). *Pyramid exploration*. Rosemont, IL: Author.